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JAN

SEARCH REQUEST FORM

6-114

Examiner # (Mandatory): _____ Requester's Full Name: FONDA 6-30-99

Art Unit _____ Location (Bldg/Room#): 7D03 Phone (circle 305 306 308) _____

Serial Number: 09/300,173 Results Format Preferred (circle): PAPER DISK E-MAIL

Title of Invention _____

Inventors (please provide full names): _____

_____

Earliest Priority Date: _____

Keywords (include any known synonyms registry numbers, explanation of initialisms):

see claim 2 for polysaccharides.
see claims 5, 6, and 8 for hydrophobic agents.

Search Topic:
Please write detailed statement of the search topic, and the concept of the invention. Describe as specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples of relevant citations, authors, etc., if known. You may include a copy of the abstract and the broadcast or most relevant claim(s).

Please search attached claims 1-20.
Note that the method claims are limited to heparin as the polysaccharide.

STAFF USE ONLY

Searcher: _____
Searcher Phone #: 308-4258
Searcher Location: _____
Date Picked Up: _____
Date Completed: 7/6
Clerical Prep Time: 15
Terminal Time: 95 1.50
Number of Databases: 2

Type of Search
_____ N.A. Sequence
_____ A.A. Sequence
_____ Structure (#)
✓ Bibliographic
_____ Litigation1
_____ Fulltext
_____ Procurement
_____ Other

Vendors (include cost where applicable)
✓ STN
_____ Questel/Orbit
_____ Lexis/Nexis
_____ WWW/Internet
_____ In-house sequence systems (list)
_____ Dialog
_____ Dr. Link
_____ Westlaw
_____ Other (specify)

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=> fil reg

FILE 'REGISTRY' ENTERED AT 12:24:33 ON 06 JUL 1999
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STRUCTURE FILE UPDATES:   03 JUL  99  HIGHEST RN 227003-54-5
DICTIONARY FILE UPDATES:  06 JUL  99  HIGHEST RN 227003-54-5

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 13, 1999

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

=> d his


     (FILE 'HOME' ENTERED AT 11:08:43 ON 06 JUL 1999)
               SET COST OFF
               SET AUHELP OFF

     FILE 'HCAPLUS' ENTERED AT 11:08:52 ON 06 JUL 1999
               E BYUN Y/AU
L1           14 S E3,E30
L2           10 S L1 AND HEPARIN
               E LEE Y/AU
L3          293 S E3,E27
               E LEE YONG/AU
L4           40 S E3,E83
               E LEE YONGKYU/AU
L5            1 S E3
L6            1 S L3-L5 AND HEPARIN
L7            1 S L1 AND L3-L5
L8            1 S L2,L6 AND L7
L9            0 S L1 AND P/DT
L10           0 S L3-L5 AND P/DT
               E KR98/AP,PRN
               E KR98-19469/AP,PRN

     FILE 'INPADOC' ENTERED AT 11:14:58 ON 06 JUL 1999
               E KR98-19469/AP,PRN

     FILE 'WPIDS' ENTERED AT 11:15:14 ON 06 JUL 1999
               E KR98-19469/AP,PRN

     FILE 'HCAPLUS' ENTERED AT 11:15:31 ON 06 JUL 1999
L11         243 S SODIUM HEPARIN
L12      196202 S CELLULOSE
L13         171 S HYDROXYMETHYLCELLULOSE
L14        1258 S HYDROXYPROPYLCELLULOSE
L15        4220 S CHOLIC ACID
L16        2476 S DEOXYCHOLIC ACID
L17        2494 S CHENODEOXYCHOLIC ACID
L18        1428 S LITHOCHOLIC ACID
L19          77 S URSOCHOLIC ACID
L20        1589 S URSODEOXYCHOLIC ACID
L21          12 S ISOURSODEOXYCHOLIC ACID
L22           3 S LAGODEOXYCHOLIC ACID
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L23          640 S GLYCOCHOLIC ACID
L24         1465 S TAUROCHOLIC ACID
L25          277 S GLYCODEOXYCHOLIC ACID
L26          296 S GLYCOCHENODEOXYCHOLIC ACID
L27          302 S DEHYDROCHOLIC ACID
L28          134 S HYOCHOLIC ACID
L29          383 S HYODEOXYCHOLIC ACID
L30         1051 S CHOLESTANOL
L31          452 S COPROSTANOL
L32        90458 S CHOLESTEROL
L33           98 S EPICHOLESTEROL
L34         3276 S ERGOSTEROL
L35          471 S ERGOCALCIFEROL
L36        12138 S BUTYRIC ACID
L37         3211 S VALERIC ACID
L38         2586 S CAPROIC ACID
L39         2331 S CAPRYLIC ACID
L40         1954 S CAPRIC ACID
L41         6952 S LAURIC ACID
L42         5498 S MYRISTIC ACID
L43        15475 S PALMITIC ACID
L44        33137 S STEARIC ACID
L45        12561 S POLYETHYLENEOXIDE OR POLY ETHYLENEOXIDE OR POLYETHYLENE OXIDE
L46         1480 S POLYEPSIOLONCAPROLACTONE OR POLYEPSILON CAPROLACTONE OR POLY
L47          156 S CAPROLACTONE (L) (ETHYLENEOXIDE OR ETHYLENE OXIDE)
L48        20334 S ETHYLENE VINYL ACETATE

     FILE 'REGISTRY' ENTERED AT 11:32:44 ON 06 JUL 1999
L49            5 S 9005-49-6 OR 9041-08-1 OR 9004-34-6 OR 37353-59-6 OR 9004-64-

     FILE 'HCAPLUS' ENTERED AT 11:33:21 ON 06 JUL 1999
L50        68515 S L49
L51       225243 S L11-L14 OR HEPARIN OR (SULFONAT? OR SULPHONAT?)(L)?SACCHARIDE

     FILE 'REGISTRY' ENTERED AT 11:35:34 ON 06 JUL 1999
L52           15 S 81-25-4 OR 83-44-3 OR 474-25-9 OR 434-13-9 OR 2955-27-3 OR 12

     FILE 'HCAPLUS' ENTERED AT 11:38:06 ON 06 JUL 1999
L53          423 S (L52 OR L15-L29 OR BILE ACID) AND L51

     FILE 'REGISTRY' ENTERED AT 11:39:20 ON 06 JUL 1999
L54            6 S 80-97-7 OR 360-68-9 OR 57-88-5 OR 474-77-1 OR 57-87-4 OR 50-1

     FILE 'HCAPLUS' ENTERED AT 11:39:30 ON 06 JUL 1999
L55         2486 S (L54 OR L30-L35 OR STEROL) AND L51

     FILE 'REGISTRY' ENTERED AT 11:40:35 ON 06 JUL 1999

     FILE 'REGISTRY' ENTERED AT 11:40:50 ON 06 JUL 1999
L56            9 S 107-92-6 OR 109-52-4 OR 142-62-1 OR 124-07-2 OR 143-07-7 OR 5

     FILE 'HCAPLUS' ENTERED AT 11:41:02 ON 06 JUL 1999
L57         2648 S (L56 OR L36-L44 OR ALKANOIC ACID) AND L51
L58          685 S POLYSACCHARIDE AND HYDROPHOBIC
L59           48 S L58 AND COVALEN?
L60         5250 S L53,L55,L57
L61           48 S L60 AND COVALEN?
L62           91 S L59,L61
L63           25 S L62 AND PHARMACEUT?/SC,SX,CW,BI,AB
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L64           5 S L62 AND L52
L65          19 S L62 AND L54
L66          14 S L62 AND L56
L67          34 S L64-L66
L68          24 S L67 AND L50
L69          24 S L68 AND COVALEN?

     FILE 'HCAPLUS' ENTERED AT 11:51:45 ON 06 JUL 1999

     FILE 'REGISTRY' ENTERED AT 11:52:26 ON 06 JUL 1999
L70           1 S 107596-21-4
L71         127 S 75-21-8/CRN AND 502-44-3/CRN
L72           3 S L71 AND 2/NC
                E POLYURETHANE/CN
                E URETHANE/CN
                E ETHYLENE VINYL ACETATE/CN
                E ETHYLENE VINYLACETATE/CN
                E ETHYLENEVINYLACETATE/CN
L73           1 S 30174-06-2
L74           1 S 24937-78-8
L75        1760 S 74-85-1/CRN AND 108-05-4/CRN
L76           6 S L75 AND 2/NC
L77           3 S L76 NOT MAN/CI
L78           6 S L72,L77
L79           6 S L73,L74,L78

     FILE 'HCAPLUS' ENTERED AT 11:58:36 ON 06 JUL 1999
L81      245673 S L***,L45-L48,POLYURETHANE OR URETHANE OR SILICONE OR SILOXANE
L82       26057 S L79
L83      268821 S L81,L82
L84         460 S L83 AND L60
L85           3 S L84 AND COVALEN?

     FILE 'REGISTRY' ENTERED AT 12:08:44 ON 06 JUL 1999
L86           2 S 9005-49-6 OR 9041-08-1

     FILE 'HCAPLUS' ENTERED AT 12:09:08 ON 06 JUL 1999
L87       15840 S L86
L88         505 S L87 AND L53,L55,L57,L58
L89          13 S L88 AND COVALEN?
L90           5 S L89 AND 63/SC,SX
L91           8 S L89 NOT L90
L92         374 S L87 AND L52,L54,L56
L93           0 S L92 AND L82
L94          11 S L92 AND (SUSTAIN? OR CONTROL?)(L)RELEAS?
L95           4 S L94 AND (PERCUTANEOUS OR HDL OR LIPOLYTIC OR STREPTOZOTOCIN)/
L96           7 S L94 NOT L95
L97          11 S L90,L96
L98          33 S L87 AND L82
L99           5 S L98 AND COVALEN?
L100          4 S L99 AND 63/SC,SX
L101         15 S L97,L100
L102         29 S L98 NOT L101
L103         28 S L102 AND 63/SC,SX
L104          0 S L103 AND L60
                SEL HIT RN L101

     FILE 'REGISTRY' ENTERED AT 12:23:43 ON 06 JUL 1999
L105         10 S E1-E10
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FILE 'REGISTRY' ENTERED AT 12:24:33 ON 06 JUL 1999

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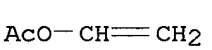
L105 ANSWER 1 OF 10 REGISTRY COPYRIGHT 1999 ACS
RN **24937-78-8** REGISTRY
CN Acetic acid ethenyl ester, polymer with ethene (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Acetic acid vinyl ester, polymer with ethylene (8CI)
OTHER NAMES:
CN 1010VN3
CN 1900W
CN 204CS95
CN 3043H
CN 3130SB
CN 3135F
CN 33G1A
CN 3507C
CN 547D
CN 54C
CN 84D
CN A 400
CN A 400 (vinyl polymer)
CN A 416
CN A 416 (polymer)
CN A 443/31
CN A 9918
CN AC 400
CN AC 400A
CN AC 401
CN AC 405
CN AC 405S
CN AC 405T
CN AC 410
CN AC 430
CN AC 440
CN AC-P 400
CN AD 1790-15
CN AD 37JD965
CN AD 37P147
CN AD 37P295
CN AD 37P66
CN AD 5
CN AD 511
CN Adcote 1790
CN Adcote 295G
CN Adcote 33-131
CN Adcote 33G1A
CN Adcote 37JD610
CN Adcote 37R610
CN Adcote AD 37P295
CN Adcote AD 37P295J
CN Adcote X 17
CN Adcote X 37T77
CN Adeva 629
CN Admer AT 589
CN Admer NE 100

CN AE 221
CN Aibon AE 20
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 158707-29-0, 53637-14-2, 58252-58-7, 58858-06-3, 123757-93-7, 60529-82-0, 64296-24-8, 129291-57-2, 129496-11-3, 97445-08-4, 103470-05-9, 103843-24-9, 51312-30-2, 141255-84-7, 111367-02-3, 112820-85-6, 137802-65-4, 74566-07-7, 148709-22-2, 78355-65-4, 144046-56-0, 144246-76-4, 81406-40-8, 86904-51-0, 88024-59-3, 39457-29-9, 116811-82-6, 117217-63-7, 117217-64-8, 117217-68-2, 117313-46-9, 183815-97-6
MF (C4 H6 O2 . C2 H4)x
CI PMS, COM
PCT Polyolefin, Polyvinyl
LC STN Files: AGRICOLA, ANABSTR, ASMDATA*, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAPLUS, CEN, CHEMCATS, CHEMLIST, CBNB, CIN, CSCHEM, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, PIRA, PLASPEC*, PROMT, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

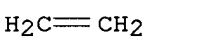
CM 1

CRN 108-05-4
CMF C4 H6 O2



CM 2

CRN 74-85-1
CMF C2 H4



25899 REFERENCES IN FILE CA (1967 TO DATE)
2374 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
25983 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:25799

REFERENCE 2: 131:25720

REFERENCE 3: 131:23350

REFERENCE 4: 131:22889

REFERENCE 5: 131:21343

REFERENCE 6: 131:21225

REFERENCE 7: 131:20892

REFERENCE 8: 131:20359

REFERENCE 9: 131:20124

REFERENCE 10: 131:20123

L105 ANSWER 2 OF 10 REGISTRY COPYRIGHT 1999 ACS
RN **9041-08-1** REGISTRY
CN Heparin, sodium salt (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Alfa 87-120
CN Alfa 87-163
CN Alfa 87-198
CN Alfa 87-81
CN Alfa 88-247
CN Ardeparin sodium
CN Bemiparin sodium
CN Dalteparin sodium
CN Danaparoid sodium
CN Depo-Heparin
CN Enoxaparin sodium
CN Fragmin
CN Fragmin IV
CN H 2149
CN Hed-Heparin
CN Heparin sodium
CN Hepathrom
CN Inno-Hep
CN Kabi 2165
CN LHN 1
CN Liquaemin sodium
CN Liquemin
CN Logiparin
CN Lovenox
CN Minolteparin sodium
CN Normiflo
CN Parnaparin sodium
CN PK 10169
CN Pularin
CN Reviparin sodium
CN RO 11
CN RP 54563
CN Sodium acid heparin
CN Sodium heparin
CN Sodium heparinate
CN Tinzaparin sodium
CN WY 90493RD
DR 12656-11-0, 101921-26-0, 102785-31-9
MF Unspecified
CI PMS, COM, MAN
PCT Manual registration, Polyester, Polyester formed
LC STN Files: ADISINSIGHT, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CABA, CAPLUS, CHEMCATS, CHEMLIST, CBNB, CIN, CSCHEM, DDFU, DRUGNL, DRUGPAT, DRUGU, DRUGUPDATES, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PHAR, PROMT, RTECS*, TOXLINE, TOXLIT, USAN, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
789 REFERENCES IN FILE CA (1967 TO DATE)
67 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
792 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:23343

REFERENCE 2: 130:351211

REFERENCE 3: 130:332537

REFERENCE 4: 130:332211

REFERENCE 5: 130:324355

REFERENCE 6: 130:320843

REFERENCE 7: 130:242240

REFERENCE 8: 130:227804

REFERENCE 9: 130:227796

REFERENCE 10: 130:217977

L105 ANSWER 3 OF 10 REGISTRY COPYRIGHT 1999 ACS
RN **9005-49-6** REGISTRY
CN Heparin (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN .alpha.-Heparin
CN Bemiparin
CN Certoparin
CN Clexane
CN Clivarin
CN Clivarine
CN CY 216
CN CY 222
CN Dalteparin
CN Enoxaparin
CN Fluxum
CN FR 860
CN Fragmin A
CN Fragmin B
CN Fraxiparin
CN Heparin sulfate
CN Heparinic acid
CN KB 101
CN Novoheparin
CN OP 386
CN OP 622
CN Pabyrn
CN Parnaparin
CN Parvoparin
CN Reviparin
CN Sandoparin
CN Sublingula
CN Vetren
CN Vitrum AB
DR 9075-96-1, 11078-24-3, 11129-39-8, 104521-37-1, 37324-73-5, 91449-79-5

MF Unspecified
CI PMS, COM, MAN
PCT Manual registration, Polyester, Polyester formed
LC STN Files: ADISINSIGHT, AGRICOLA, AIDSLINE, ANABSTR, BIOBUSINESS, BIOSIS, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST, CBNB, CIN, CSCHEM, DDFU, DRUGNL, DRUGPAT, DRUGU, DRUGUPDATES, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PHAR, PROMT, RTECS*, TOXLINE, TOXLIT, USAN, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
15277 REFERENCES IN FILE CA (1967 TO DATE)
1542 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
15300 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:23585

REFERENCE 2: 131:23577

REFERENCE 3: 131:23532

REFERENCE 4: 131:23508

REFERENCE 5: 131:23483

REFERENCE 6: 131:19223

REFERENCE 7: 131:19222

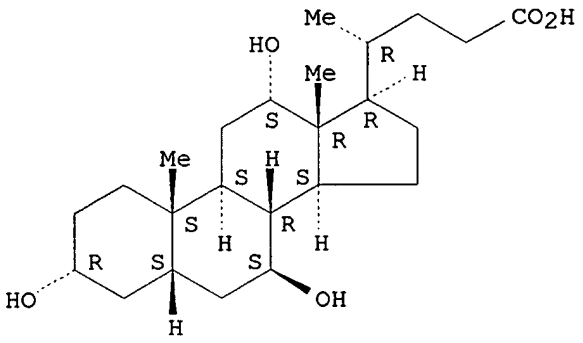
REFERENCE 8: 131:17420

REFERENCE 9: 131:16976

REFERENCE 10: 131:16875

L105 ANSWER 4 OF 10 REGISTRY COPYRIGHT 1999 ACS
RN **2955-27-3** REGISTRY
CN Cholan-24-oic acid, 3,7,12-trihydroxy-, (3.alpha.,5.beta.,7.beta.,12.alpha.)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 5.beta.-Cholan-24-oic acid, 3.alpha.,7.beta.,12.alpha.-trihydroxy- (8CI)
CN 5.beta.-Cholanic acid, 3.alpha.,7.beta.,12.alpha.-trihydroxy- (7CI)
OTHER NAMES:
CN 3.alpha.,7.beta.,12.alpha.-Trihydroxy-5.beta.-cholanic acid
CN 3.alpha.,7.beta.,12.alpha.-Trihydroxy-5.beta.-cholanoic acid
CN 3.alpha.,7.beta.,12.alpha.-Trihydroxycholanic acid
CN 7-Epicholic acid
CN 7.beta.-Hydroxyisocholic acid
CN Ursocholic acid
FS STEREOSEARCH
DR 121571-08-2
MF C24 H40 O5
CI COM
LC STN Files: BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMINFORMRX, DETHERM*, DDFU, DRUGU, EMBASE, GMELIN*, IPA, MEDLINE, NAPRALERT, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.



154 REFERENCES IN FILE CA (1967 TO DATE)
6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
154 REFERENCES IN FILE CAPLUS (1967 TO DATE)
7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 130:308722

REFERENCE 2: 130:301714

REFERENCE 3: 129:250255

REFERENCE 4: 129:245326

REFERENCE 5: 128:326328

REFERENCE 6: 128:280428

REFERENCE 7: 128:215953

REFERENCE 8: 128:126586

REFERENCE 9: 128:39642

REFERENCE 10: 128:21062

L105 ANSWER 5 OF 10 REGISTRY COPYRIGHT 1999 ACS
RN **544-63-8** REGISTRY
CN Tetradecanoic acid (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Myristic acid (8CI)
OTHER NAMES:
CN 1-Tridecanecarboxylic acid
CN Edenor C 14
CN Emery 655
CN Hystrene 9014
CN Kortacid 1499
CN n-Tetradecan-1-oic acid
CN n-Tetradecanoic acid
CN n-Tetradecoic acid
CN NAA 104

CN NAA 142
CN Neo-Fat 14
CN Philacid 1400
CN Prifac 2942
CN Univol U 316S
FS 3D CONCORD
DR 45184-05-2
MF C14 H28 O2
CI COM
LC STN Files: AGRICOLA, AIDSLINE, ANABSTR, APILIT, APILIT2, APIPAT, APIPAT2, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM*, DDFU, DIPPR*, DRUGU, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, TRCTHERMO*, TULSA, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

$HO_2C-(CH_2)_{12}-Me$

11215 REFERENCES IN FILE CA (1967 TO DATE)
483 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
11223 REFERENCES IN FILE CAPLUS (1967 TO DATE)
13 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 131:23512

REFERENCE 2: 131:23217

REFERENCE 3: 131:22112

REFERENCE 4: 131:18402

REFERENCE 5: 131:18334

REFERENCE 6: 131:18183

REFERENCE 7: 131:18150

REFERENCE 8: 131:18135

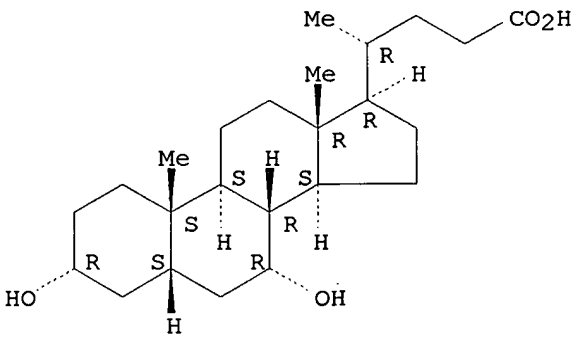
REFERENCE 9: 131:18097

REFERENCE 10: 131:18094

L105 ANSWER 6 OF 10 REGISTRY COPYRIGHT 1999 ACS
RN **474-25-9** REGISTRY
CN Cholan-24-oic acid, 3,7-dihydroxy-, (3.alpha.,5.beta.,7.alpha.)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 5.beta.-Cholan-24-oic acid, 3.alpha.,7.alpha.-dihydroxy- (8CI)
OTHER NAMES:
CN 3.alpha.,7.alpha.-Dihydroxy-5.beta.-cholan-24-oic acid
CN 3.alpha.,7.alpha.-Dihydroxy-5.beta.-cholanic acid
CN 3.alpha.,7.alpha.-Dihydroxy-5.beta.-cholanoic acid

CN 3.alpha.,7.alpha.-Dihydroxycholanic acid
CN 7.alpha.-Hydroxylithocholic acid
CN Anthropodeoxycholic acid
CN Anthropodesoxycholic acid
CN Anthropododesoxycholic acid
CN CDC
CN Chendol
CN Chenic acid
CN Chenodeoxycholic acid
CN Chenodesoxycholic acid
CN Chenodiol
CN Gallodesoxycholic acid
FS STEREOSEARCH
MF C24 H40 O4
CI COM
LC STN Files: AGRICOLA, AIDSLINE, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CBNB, CIN, CSCHEM, CSNB, DETHERM*, DDFU, DRUGU, EMBASE, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, USAN, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



2964 REFERENCES IN FILE CA (1967 TO DATE)
143 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2968 REFERENCES IN FILE CAPLUS (1967 TO DATE)
20 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 131:18391

REFERENCE 2: 131:15856

REFERENCE 3: 131:14194

REFERENCE 4: 131:2721

REFERENCE 5: 130:350237

REFERENCE 6: 130:345049

REFERENCE 7: 130:322477

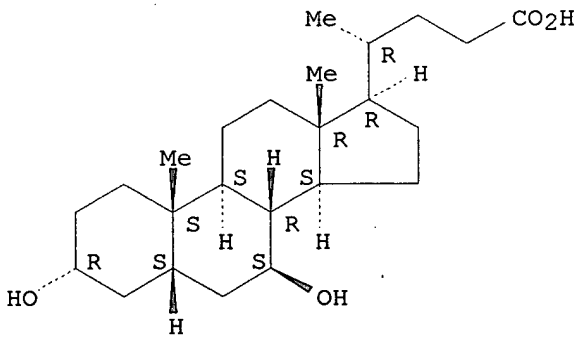
REFERENCE 8: 130:309449

REFERENCE 9: 130:308722

REFERENCE 10: 130:306386

L105 ANSWER 7 OF 10 REGISTRY COPYRIGHT 1999 ACS
RN **128-13-2** REGISTRY
CN Cholan-24-oic acid, 3,7-dihydroxy-, (3.alpha.,5.beta.,7.beta.)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 5.beta.-Cholan-24-oic acid, 3.alpha.,7.beta.-dihydroxy- (8CI)
OTHER NAMES:
CN 3.alpha.,7.beta.-Dihydroxy-5.beta.-cholan-24-oic acid
CN 3.alpha.,7.beta.-Dihydroxy-5.beta.-cholanic acid
CN 3.alpha.,7.beta.-Dihydroxy-5.beta.-cholanoic acid
CN 3.alpha.,7.beta.-Dihydroxycholanic acid
CN 7.beta.-Hydroxylithocholic acid
CN Actigall
CN Desocol
CN Deursil
CN Urso
CN Ursocholic acid, deoxy-
CN Ursodeoxycholic acid
CN Ursodesoxycholic acid
CN Ursodiol
FS STEREOSEARCH
DR 50809-41-1, 80225-86-1
MF C24 H40 O4
CI COM
LC STN Files: ADISINSIGHT, AGRICOLA, AIDSLINE, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CBNB, CIN, CSCHEM, DETHERM*, DDFU, DRUGU, EMBASE, HODOC*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, NAPRALERT, NIOSHTIC, PHAR, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, USAN, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: EINECS**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



1818 REFERENCES IN FILE CA (1967 TO DATE)
67 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

1822 REFERENCES IN FILE CAPLUS (1967 TO DATE)
9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 131:13243

REFERENCE 2: 131:681

REFERENCE 3: 130:350237

REFERENCE 4: 130:332857

REFERENCE 5: 130:322477

REFERENCE 6: 130:308722

REFERENCE 7: 130:306571

REFERENCE 8: 130:306398

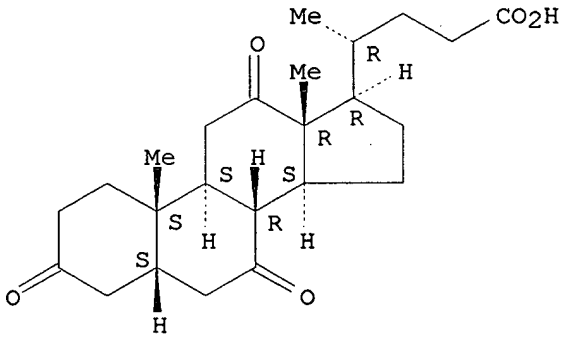
REFERENCE 9: 130:301714

REFERENCE 10: 130:278308

L105 ANSWER 8 OF 10 REGISTRY COPYRIGHT 1999 ACS
RN **81-23-2** REGISTRY
CN Cholan-24-oic acid, 3,7,12-trioxo-, (5.beta.)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 5.beta.-Cholan-24-oic acid, 3,7,12-trioxo- (8CI)
OTHER NAMES:
CN 3,7,12-Triketo-5.beta.-cholanic acid
CN 3,7,12-Triketo-5.beta.-cholanoic acid
CN 3,7,12-Triketocholanic acid
CN 3,7,12-Trioxo-5.beta.-cholan-24-oic acid
CN 3,7,12-Trioxo-5.beta.-cholanic acid
CN 3,7,12-Trioxocholanic acid
CN Acolen
CN Bilidren
CN Bilostat
CN Cholagon
CN Cholic acid, dehydro-
CN Cholimed
CN Chologon
CN Decholin
CN Dehychol
CN Dehycon
CN Dehydrocholic acid
CN Dehystolin
CN Deidrocolico Vita
CN DHC
CN Didocol
CN Didrocolo
CN Dilabil
CN Drenobyl
CN Erebile
CN Felacrinos
CN Hydrochol
CN Hykolex
CN Ketocholanic acid
CN Novocolin

CN Oxycholin
CN Procholon
CN Sanocholen
CN Triketocholanic acid
FS STEREOSEARCH
MF C24 H34 O5
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, HODOC*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, NAPRALERT, NIOSHTIC, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, USAN, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry. Rotation (+).



389 REFERENCES IN FILE CA (1967 TO DATE)
8 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
389 REFERENCES IN FILE CAPLUS (1967 TO DATE)
5 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 130:326572

REFERENCE 2: 130:322477

REFERENCE 3: 129:285538

REFERENCE 4: 129:270624

REFERENCE 5: 129:189522

REFERENCE 6: 129:8597

REFERENCE 7: 128:312903

REFERENCE 8: 128:288640

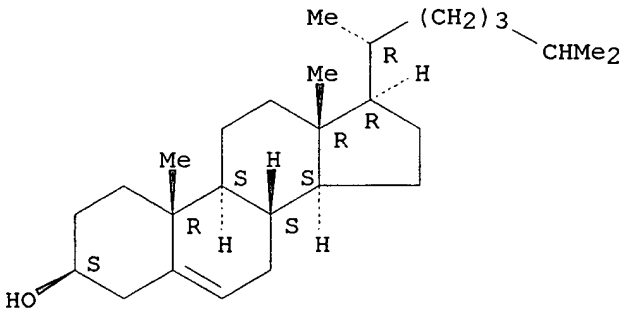
REFERENCE 9: 128:229877

REFERENCE 10: 128:229384

L105 ANSWER 9 OF 10 REGISTRY COPYRIGHT 1999 ACS
RN **57-88-5** REGISTRY

CN Cholest-5-en-3-ol (3.beta.)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Cholesterol (8CI)
OTHER NAMES:
CN (-)-Cholesterol
CN .DELTA.5-Cholesten-3.beta.-ol
CN 3.beta.-Hydroxycholest-5-ene
CN 5:6-Cholesten-3.beta.-ol
CN Cholest-5-en-3.beta.-ol
CN Cholesterin
CN Cholesteryl alcohol
CN Dythol
CN Lidinit
CN Lidinite
CN Provitamin D
FS STEREOSEARCH
DR 209124-38-9, 218965-24-3
MF C27 H46 O
CI COM
LC STN Files: AGRICOLA, AIDSLINE, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CBNB, CIN, CSCHEM, CSNB, DETHERM*, DDFU, DIPPR*, DRUGU, EMBASE, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, TULSA, ULIDAT, USAN, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



65406 REFERENCES IN FILE CA (1967 TO DATE)
7293 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
65449 REFERENCES IN FILE CAPLUS (1967 TO DATE)
15 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 131:24646

REFERENCE 2: 131:23551

REFERENCE 3: 131:23549

REFERENCE 4: 131:23545

REFERENCE 5: 131:23536

REFERENCE 6: 131:23525

REFERENCE 7: 131:23407

REFERENCE 8: 131:23384

REFERENCE 9: 131:23340

REFERENCE 10: 131:23000

L105 ANSWER 10 OF 10 REGISTRY COPYRIGHT 1999 ACS
RN **57-10-3** REGISTRY
CN Hexadecanoic acid (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Palmitic acid (7CI, 8CI)
OTHER NAMES:
CN 1-Pentadecanecarboxylic acid
CN Cetylic acid
CN Emersol 143
CN Hydrofol Acid 1690
CN Hystrene 9016
CN Kortacid 1698
CN Loxiol EP 278
CN Lunac P 95
CN Lunac P 95KC
CN n-Hexadecanoic acid
CN n-Hexadecoic acid
CN NAA 160
CN Neo-Fat 16
CN PA 900
CN Palmitinic acid
CN Pentadecanecarboxylic acid
CN Prifac 2960
FS 3D CONCORD
DR 60605-23-4, 66321-94-6, 116860-99-2, 212625-86-0
MF C16 H32 O2
CI COM
LC STN Files: AGRICOLA, AIDSLINE, ANABSTR, APILIT, APILIT2, APIPAT, APIPAT2, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CBNB, CIN, CSCHEM, CSNB, DETHERM*, DDFU, DIPPR*, DRUGU, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, TRCTHERMO*, TULSA, ULIDAT, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

$HO_2C-(CH_2)_{14}-Me$

24288 REFERENCES IN FILE CA (1967 TO DATE)
927 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
24307 REFERENCES IN FILE CAPLUS (1967 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 131:23531

REFERENCE 2: 131:23496

REFERENCE 3: 131:23322

REFERENCE 4: 131:23217

REFERENCE 5: 131:22112

REFERENCE 6: 131:21236

REFERENCE 7: 131:20973

REFERENCE 8: 131:18443

REFERENCE 9: 131:18402

REFERENCE 10: 131:18392

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FILE LAST UPDATED: 5 Jul 1999 (19990705/ED)

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This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> d all l8

L8 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 1999 ACS
AN 1998:765663 HCAPLUS
DN 130:114999
TI Preparation of slightly hydrophobic **heparin** derivatives which can be used for solvent casting in polymeric formulation
AU **Lee, Yong-Kyu**; Moon, Hyun Tae; **Byun, Youngro**
CS Department of Materials Science and Engineering, Kwangju Institute of Science and Technology, Kwangju, 506-712, S. Korea
SO Thromb. Res. (1998), 92(4), 149-156
CODEN: THBRAA; ISSN: 0049-3848
PB Elsevier Science Inc.
DT Journal
LA English
CC 63-8 (Pharmaceuticals)

AB **Heparin** is clin. administered mainly by i.v. injection because of its highly hydrophilic property. A slightly hydrophobic **heparin** deriv. which can be dissolved in org. solvent can be widely used in polymeric devices for clin. applications. In this study, hydrophobic **heparin** derivs. were prepd. by coupling **heparin** with deoxycholic acid, cholesterol, lauric acid, and palmitic acid, resp. The hydrophobicity of these **heparin** derivs. depended on the feed mole ratio of **heparin** to hydrophobic agents, and they showed good soly. in the co-solvent of acetone and water, as well as in water alone. Also, these **heparin** derivs. showed high anticoagulant activity. This approach for prepg. hydrophobic **heparin** is expected to advance the drug delivery system by further extending the applications of **heparin** to medical devices such as cardiopulmonary bypass circuits, heart lung oxygenators, and kidney dialyzers.

ST **heparin** hydrophobic deriv medical polymer

IT Antithrombogenic medical goods
Hydrophobicity
(prepn. of slightly hydrophobic **heparin** derivs. which can be used for solvent casting in polymeric formulation)

IT 57-10-3DP, Palmitic acid, reaction products with **heparin**
57-88-5DP, Cholesterol, reaction products with **heparin**
83-44-3DP, Deoxycholic acid, reaction products with **heparin**
143-07-7DP, Lauric acid, reaction products with **heparin**
9005-49-6DP, **Heparin**, reaction products with cholates and alkanoic acids
RL: BAC (Biological activity or effector, except adverse); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of slightly hydrophobic **heparin** derivs. which can be used for solvent casting in polymeric formulation)

=> d bib abs hitrn tot l101

L101 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1998:414634 HCAPLUS
DN 129:72224
TI Oral drug delivery compositions and methods
IN Milstein, Sam J.; Barantsevitch, Evgueni N.; Sarubbi, Donald J.; Leone-Bay, Andrea; Paton, Duncan R.
PA Emisphere Technologies, Inc., USA
SO U.S., 40 pp. Cont.-in-part of U.S. 5,451,410.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 17

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5766633	A	19980616	US 95-537888	19951023
	US 5451410	A	19950919	US 93-51019	19930422
	US 5792451	A	19980811	US 94-205511	19940302
PRAI	US 93-51019	19930422			
	US 94-205511	19940302			
	WO 94-US4560	19940422			

OS MARPAT 129:72224
AB The present invention relates to an oral drug delivery system, and in particular to modified amino acids and modified amino acid derivs. for use as a delivery system of sensitive agents such as bioactive peptides. The

modified amino acids and derivs. can form non-**covalent** mixts. with active biol. agents and in an alternate embodiment can releasably carry active agents. Modified amino acids can also form drug contg. microspheres. These mixts. are suitable for oral administration of biol. active agents to animals. Methods for the prepn. of such amino acids are also disclosed. In a test tube 568 mg acetyl phenylalanine aldehyde, 132 mg carbomethoxyphenylalanylleucine, and 100 mg N-acetyl-Phe-Leu-Leu-Arg aldehyde were added to 2.9 mL of 15 % ethanol. The soln. was stirred and NaOH was added to raise the pH to 7.2 and water was added to bring the total vol. to 4 mL. Calcitonin 6 .mu.g was added to the soln. to obtain an oral soln.

IT **9005-49-6, Heparin**, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amino acid derivs. for oral delivery of sensitive biol. active agents)

L101 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1998:195043 HCAPLUS
DN 128:248635
TI Small caliber vascular grafts with significant patency enhancement via a surface coating which contains **covalently** bonded bioactive agents
IN Patnaik, Birendra K.; Lin, Horng-Ban; Lentz, David J.; Zdrahala, Richard J.
PA Meadox Medicals, Inc., USA
SO PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9810806	A1	19980319	WO 97-US16163	19970911
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9743436	A1	19980402	AU 97-43436	19970911
PRAI US 96-713800		19960913		
WO 97-US16163		19970911		

AB Disclosed are implantable medical devices with enhanced patency. Expanded polytetrafluoroethylene small caliber vascular grafts coated with polymer bound bio-active agents that exhibit enhanced patency are disclosed. In a preferred embodiment, prior to deposition of the bioactive coating, the **hydrophobic** surface is treated with a hydrogen-rich plasma to provide better adhesion of the coating. The plasma-primed ePTFE grafts are then contacted with coating materials, which comprise bioactive agents, such as heparin, **covalently** bound to a polymer-spacer complex in the presence of a dehydrating agent.

IT **9005-49-6**, Heparin, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(small caliber vascular grafts coated with polymer-bound bioactive agents)

L101 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1997:503011 HCAPLUS

DN 127:113410
TI Crosslinked polymer compositions and methods for their use
IN Rhee, Woonza M.; Delustro, Frank A.; Berg, Richard A.
PA Collagen Corporation, USA
SO PCT Int. Appl., 75 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9722371	A1	19970626	WO 96-US19975	19961218
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9713344	A1	19970714	AU 97-13344	19961218
	EP 876165	A1	19981111	EP 96-944824	19961218
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 95-573799	19951218			
	WO 96-US19975	19961218			

AB Crosslinked polymer compns. comprise a first synthetic polymer contg. multiple nucleophilic groups **covalently** bound to a second synthetic polymer contg. multiple electrophilic groups. The first synthetic polymer is preferably a synthetic polypeptide or a polyethylene glycol that has been modified to contain multiple nucleophilic groups, such as primary amino (-NH2) or thiol (-SH) groups. The second synthetic polymer may be a hydrophilic or **hydrophobic** synthetic polymer which contains, or has been derivatized to contain, two or more electrophilic groups, such as succinimidyl groups. The compns. may further comprise other components, such as naturally occurring **polysaccharides** or proteins (such as glycosaminoglycans or collagen) and/or biol. active agents. Also disclosed are methods for using the crosslinked polymer compns. to effect adhesion between a first surface and a second surface; to effect tissue augmentation; to prevent the formation of surgical adhesions; and to coat a surface of a synthetic implant, such as those for cell delivery.
IT **9005-49-6**, Heparin, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in crosslinked polymer compns. for prosthetic implants)

L101 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1997:379803 HCAPLUS
DN 127:86043
TI **Covalent** bonding of heparin to a vinyl copolymer for biomedical applications
AU Marconi, W.; Benvenuti, F.; Piozzi, A.
CS Dep. Chem., Univ. Rome "La Sapienza", Rome, 00185, Italy
SO Biomaterials (1997), 18(12), 885-890
CODEN: BIMADU; ISSN: 0142-9612
PB Elsevier
DT Journal
LA English
AB In order to prep. polymer surfaces of vinyl type, provided with long-term hemocompatibility, a com. ethylene-vinyl alc. copolymer (EVAL) was **covalently** heparinized, employing two different bifunctional reagents (adipoyl chloride and hexamethylene diisocyanate). The amt. and activity of the heparin bonded to the polymer films were evaluated as a function of the concn. of the heparin solns. employed. Also, the influence exerted by the presence of various hydrophilic 'spacing arms' of

different mol. wts., either neutral or provided with elec. charge, was investigated. By in vitro measurements of activated partial thromboplastin time it was seen that all the heparinized samples possessed a high degree of hemocompatibility. For the sake of comparison, heparin was also bonded ionically to EVAL functionalized by introduction of quaternary ammonium groups bonded **covalently** (by adipoyl chloride) to the hydroxyl groups of the polymer. It was seen that the **covalent** immobilization system provides the polymer surfaces with a superior hemocompatibility.

IT **9005-49-6DP**, Heparin, reaction products EVA **24937-78-8DP**, Eva, reaction products with spacers and heparin
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**covalent** bonding of heparin to a vinyl copolymer for biomedical applications)

L101 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1997:224081 HCAPLUS
DN 126:216675
TI Drug delivery systems for macromolecular drugs
IN Dunn, James M.
PA Dunn, James M., USA
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9704747	A1	19970213	WO 96-US12203	19960725

W: CA, JP, MX
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

PRAI US 95-508247 19950727

AB This invention described the oral, parenteral or inhalation delivery of large macromols. Biol. active drugs are entrapped into biodegradable hydrogel polymers in either org. and water phase systems. By using cyclodextrins, sensitive mols. can be protected during the granulations of nanoparticles prodn. phase. Aq. insulin (100 mL; 10,000U) was mixed with 100 g .beta.-cyclodextrin and blended to give a clear soln. To this soln. was added 500 mg liposomal Phospholipon 90H and the soln. blended, then 1000 mg a 30% dispersion of Me methacrylate was added. The mixt. was dried at 60.degree. for 4-6 h until dry. The effectiveness of the insulin nanoparticles in decreasing blood glucose levels was demonstrated in rats.

IT **9005-49-6**, Heparin, biological studies **9041-08-1**, Heparin sodium
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymeric drug delivery systems for macromol. drugs)

IT **57-88-5**, Cholesterol, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymeric drug delivery systems for macromol. drugs)

L101 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1996:544101 HCAPLUS
DN 125:177462
TI Surface-modified nanoparticles and method of making and using them
IN Levy, Robert J.; Labhasetwar, Vinod; Song, Cunxian S.
PA USA
SO PCT Int. Appl., 170 pp.

CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9620698	A2	19960711	WO 96-US476	19960104
WO 9620698	A3	19980122		
W: AL, AM, AT, AU, CA, CH, CN, CZ, DE, DK, GB, HU, IS, JP, KE, LU, VN, MN, NO, US				
RW: KE, LS, SD, AT, BE, CH, DE, ES, FR, GB, IT, LU, NL, PT, SE, NL, MR, NE, SN				
CA 2207961	AA	19960711	CA 96-2207961	19960104
AU 9647556	A1	19960724	AU 96-47556	19960104
EP 805678	A1	19971112	EP 96-903476	19960104
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
JP 10511957	T2	19981117	JP 96-521279	19960104
PRAI US 95-369541	19950105			
US 95-389893	19950216			
WO 96-US476	19960104			

AB Biodegradable **controlled-release** nanoparticles as **sustained release** bioactive agent delivery vehicles include surface modifying agents to target binding of the nanoparticles to tissues or cells of living systems, to enhance nanoparticle **sustained release** properties, and to protect nanoparticle-incorporated bioactive agents. Unique methods of making small (10 nm to 15 nm, and preferably 20 nm to 35 nm) nanoparticles having a narrow size distribution which can be surface-modified after the nanoparticles are formed is described. Techniques for modifying the surface include a lyophilization technique to produce a phys. adsorbed coating and epoxy-derivatization to functionalize the surface of the nanoparticles to **covalently** bind mols. of interest. The nanoparticles may also comprise hydroxy-terminated or epoxide-terminated and/or activated multiblock copolymers, having **hydrophobic** segments which may be polycaprolactone and hydrophilic segments. The nanoparticles are useful for local intravascular administration of smooth muscle inhibitors and antithrombogenic agents as part of interventional cardiac or vascular catheterization such as a balloon angioplasty procedure; direct application to tissues and/or cells for gene therapy, such as the delivery of osteotropic genes or gene segments into bone progenitor cells; or oral administration in an enteric capsule for delivery of protein/peptide based vaccines.

IT **57-10-3**, Hexadecanoic acid, biological studies **57-88-5**, **Cholesterol**, biological studies **9005-49-6**, **Heparin**, biological studies
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(surface-modified polymer **controlled-release** nanoparticles for **sustained** drug delivery)

IT **9005-49-6DP**, **Heparin**, reaction products with epoxide end-capped polymer
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(surface-modified polymer **controlled-release** nanoparticles for **sustained** drug delivery)

L101 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1995:307368 HCAPLUS
DN 122:89343

TI Study of hemodialysis materials: physicochemical and biological characterization of EVALVA, EVAPA, and heparinized EVAPA
AU Barbucci, R.; Albanese, A.; Tempesti, F.; Baszkin, A.; Eloy, R.; Weill, N.; Martuscelli, E.; Cimmino, S.
CS CRISMA, Universita di Siena, Siena, 53100, Italy
SO J. Mater. Sci.: Mater. Med. (1994), 5(12), 844-9
CODEN: JSMMEL; ISSN: 0957-4530
DT Journal
LA English
AB Partially hydrolyzed ethylene/vinyl acetate copolymers were modified by the **covalent** binding of a heparin-complexing polymer and further heparinized in order to improve their blood compatibility. These heparinizable polymeric materials (EVAPA) were obtained by a 2-step reaction between an ethylene/vinyl alc./vinyl acetate (EVALVA) terpolymer, and the heparin complexing polymer N2LL. The physicochem. characterization of EVALVA, EVAPA and heparinized-EVAPA was carried out through thermal anal., SEM, contact angle, potentiometric measurements, water uptake and FT-IR spectroscopic measurements. The biocompatibility of the above-mentioned samples was evaluated using in vitro methods, through the detn. of heparin release in phosphate buffer soln. and in human plasma, and with the investigation of hemostasis activation.
IT **9005-49-6D**, Heparin, reaction products with polyamide-polyamines and ethylene-vinyl alc.-vinyl acetate copolymer **24937-78-8D**, Ethylene-vinyl acetate copolymer, hydrolyzed, reaction products with polyamide-polyamines
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(physicochem. and biol. characterization of heparinized hemodialysis polymers)

L101 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1994:226984 HCAPLUS
DN 120:226984
TI Compositions of oral nondissolvable matrixes for transmucosal administration of medicaments
IN Stanley, Theodore H.; Hague, Brian
PA University of Utah Research Foundation, USA
SO U.S., 20 pp. Cont.-in-part of U.S. 4,863,737.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5288498	A	19940222	US 89-403752	19890905
	US 4671953	A	19870609	US 85-729301	19850501
	JP 05501539	T2	19930325	JP 89-504878	19890816
	JP 2801050	B2	19980921		
	AU 641127	B2	19930916	AU 89-40704	19890816
	EP 487520	B1	19950412	EP 89-909497	19890816
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	AT 120953	E	19950415	AT 89-909497	19890816
	CA 1338978	A1	19970311	CA 89-609378	19890824
	AU 9050352	A1	19910408	AU 90-50352	19890905
	AU 645966	B2	19940203		
	EP 493380	A1	19920708	EP 90-902584	19890905
	EP 493380	B1	19971029		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	US 5132114	A	19920721	US 89-402881	19890905
	JP 05501854	T2	19930408	JP 90-502779	19890905

	CA 1339075	A1	19970729	CA 89-610329	19890905
	AT 159658	E	19971115	AT 90-902584	19890905
	WO 9103236	A1	19910321	WO 90-US4369	19900803
	W: AU, CA, JP, NO				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
	AU 9063371	A1	19910408	AU 90-63371	19900803
	AU 642664	B2	19931028		
	EP 490944	A1	19920624	EP 90-913359	19900803
	EP 490944	B1	19960529		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
	JP 05500058	T2	19930114	JP 90-512483	19900803
	JP 2749198	B2	19980513		
	AT 138562	E	19960615	AT 90-913359	19900803
	ES 2089027	T3	19961001	ES 90-913359	19900803
	CA 2066403	C	19980414	CA 90-2066403	19900803
	NO 9200565	A	19920213	NO 92-565	19920213
	DK 9200193	A	19920214	DK 92-193	19920214
	NO 9200858	A	19920304	NO 92-858	19920304
	NO 9200855	A	19920410	NO 92-855	19920304
	NO 9200854	A	19920427	NO 92-854	19920304
	DK 9200300	A	19920505	DK 92-300	19920305
	AU 9460697	A1	19940623	AU 94-60697	19940427
	US 5855908	A	19990105	US 94-339655	19941115
PRAI	US 85-729301	19850501			
	US 87-60045	19870608			
	EP 89-909497	19890816			
	WO 89-US3518	19890816			
	US 89-403752	19890905			
	WO 89-US3801	19890905			
	WO 90-US4369	19900803			
	US 93-152414	19931112			

AB Compns. and methods of manuf. for producting a medicament compn. capable of absorption through the mucosal tissues of the mouth, pharynx, and esophagus are disclosed. The present invention relates to such compns. and methods which are useful in administering lipophilic and nonlipophilic drugs in a dose-to-effect manner such that sufficient drug is administered to produce precisely a desired effect. The invention also relates to manufg. techniques that enable therapeutic agents to be incorporated into nondissolvable drug containment matrixes which are capable of releasing the drug within a patient's mouth. An appliance or holder is preferably attached to the drug containment matrix. Employing the present invention the drug may be introduced into the patient's bloodstream almost as fast as through injection, and much faster than using the oral administration route, while avoiding the neg. aspects of both of these methods. The nondissolvable drug containment matrix may include permeation enhancers to increase the drug adsorption by the mucosal tissues of the mouth. The matrix compn. may also include pH buffering agents to modify the saliva pH thereby increasing the absorption of the drug through the mucosal tissues. Figures show views of some dosage forms.

IT **81-23-2**, Dehydrocholate **128-13-2**, Ursodeoxycholate **474-25-9**, Chenodeoxycholate **2955-27-3**, Ursocholate
RL: BIOL (Biological study)
(as permeation enhancer for transmucosal pharmaceuticals)

IT **9005-49-6**, Heparin, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(transmucosal pharmaceuticals contg.)

L101 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1994:226981 HCAPLUS

DN 120:226981
TI Compositions of oral dissolvable medicaments
IN Stanley, Theodore H.; Hague, Brian
PA University of Utah, USA
SO U.S., 22 pp. Cont.-in-part of U.S. 4,863,737.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5288497	A	19940222	US 89-403751	19890905
	US 4671953	A	19870609	US 85-729301	19850501
	JP 05501539	T2	19930325	JP 89-504878	19890816
	JP 2801050	B2	19980921		
	AU 641127	B2	19930916	AU 89-40704	19890816
	EP 487520	B1	19950412	EP 89-909497	19890816
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	AT 120953	E	19950415	AT 89-909497	19890816
	CA 1338978	A1	19970311	CA 89-609378	19890824
	AU 9050352	A1	19910408	AU 90-50352	19890905
	AU 645966	B2	19940203		
	EP 493380	A1	19920708	EP 90-902584	19890905
	EP 493380	B1	19971029		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	US 5132114	A	19920721	US 89-402881	19890905
	JP 05501854	T2	19930408	JP 90-502779	19890905
	CA 1339075	A1	19970729	CA 89-610329	19890905
	AT 159658	E	19971115	AT 90-902584	19890905
	WO 9103237	A1	19910321	WO 90-US4384	19900803
	W: AU, CA, JP, NO				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
	AU 9062877	A1	19910408	AU 90-62877	19900803
	AU 645265	B2	19940113		
	EP 490916	A1	19920624	EP 90-912733	19900803
	EP 490916	B1	19951018		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
	JP 05503917	T2	19930624	JP 90-512229	19900803
	EP 630647	A1	19941228	EP 94-111352	19900803
	EP 630647	B1	19990303		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
	AT 129148	E	19951115	AT 90-912733	19900803
	ES 2077686	T3	19951201	ES 90-912733	19900803
	CA 2066423	C	19980414	CA 90-2066423	19900803
	AT 177007	E	19990315	AT 94-111352	19900803
	NO 9200565	A	19920213	NO 92-565	19920213
	DK 9200193	A	19920214	DK 92-193	19920214
	NO 9200857	A	19920406	NO 92-857	19920304
	NO 9200855	A	19920410	NO 92-855	19920304
	NO 9200854	A	19920427	NO 92-854	19920304
	DK 9200300	A	19920505	DK 92-300	19920305
	AU 9455218	A1	19940428	AU 94-55218	19940218
	AU 668004	B2	19960418		
	AU 9460697	A1	19940623	AU 94-60697	19940427
	US 5824334	A	19981020	US 96-636828	19960419
	US 5783207	A	19980721	US 97-795359	19970204
	US 5785989	A	19980728	US 97-822560	19970319
PRAI	US 85-729301	19850501			
	US 87-60045	19870608			

	EP 89-909497	19890816
	WO 89-US3518	19890816
	US 89-403751	19890905
	WO 89-US3801	19890905
	EP 90-912733	19900803
	WO 90-US4384	19900803
	US 93-152396	19931112
	US 94-333233	19941102
	US 95-439127	19950511

AB Compns. and methods of manuf. for producing a medicament compn. capable of absorption through the mucosal tissues of the mouth, pharynx, and esophagus are disclosed. The present invention relates to such compns. and methods which are useful in administering lipophilic and nonlipophilic drugs in a dose-to-effect manner that sufficient drug is administered to produce precisely a desired effect. The invention also relates to a manufg. technique that enables a therapeutic agent or drug to be incorporated into a flavored dissolvable matrix. An appliance or holder is preferably attached to the dissolvable matrix. Employing the present invention the drug may be introduced into the patient's bloodstream almost as fast as through injection, and much faster than using the oral administration route, while avoiding the neg. aspects of both of these methods. The present invention achieves these advantages by incorporating the drug into a carbohydrate, fat, protein, wax, or other dissolvable matrix compn. The dissolvable matrix may include permeation enhancers to increase the drug absorption by the mucosal tissues of the mouth. The matrix compn. may also include pH buffering agents to modify the salival pH thereby increasing the absorption of the drug through the mucosal tissue. Methohexital sodium was incorporated into a dissolvable matrix including citric acid; ribotide; Compritol 888; aspartame; vanilla, wild cherry, and peppermint microcapsules; compressible sugar; and maltodextrin.

IT **81-23-2**, Dehydrocholate **128-13-2**, Ursodeoxycholate **474-25-9**, Chenodeoxycholate **2955-27-3**, Ursocholate
RL: BIOL (Biological study)
(as permeation enhancer for transmucosal pharmaceuticals)

IT **9005-49-6**, Heparin, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(transmucosal pharmaceuticals contg.)

L101 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1994:200438 HCAPLUS
DN 120:200438
TI **Controlled-release** transdermal pharmaceuticals containing cyrogels
IN Wood, Louis L.; Calton, Gary J.
PA SRCHEM Inc., USA
SO U.S., 15 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5260066	A	19931109	US 92-821627	19920116
	US 5288503	A	19940222	US 92-899369	19920616
PRAI	US 92-821627		19920116		

AB A **controlled-release** transdermal pharmaceutical contg. therapeutic agents in a poly(vinyl alc.) (I) cyrogel is disclosed. A slurry of 11.0 mg ciprofloxacin.HCl (II) and 200 mg 10% I was warmed to

50-60.degree. to obtain a clear homogeneous soln. The soln. was then placed in a mold and subjected to 6 freeze-thaw cycles to give a white opaque elastomeric cryogel having 15mm diam. and 0.5mm thickness. The **release** of II from the gel in 0.9% NaCl was 74% in th 1st 4 hs and it was const. in the subsequent 5-24 hs.

IT **81-23-2**, Dehydrocholic acid **9005-49-6**, Heparin, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**controlled-release** transdermal pharmaceuticals contg. cryogels and)

L101 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1989:484146 HCAPLUS
DN 111:84146
TI Polymeric articles having antithrombogenic activity
IN Hu, Can B.; Solomon, Donald D.
PA Becton, Dickinson and Co., USA
SO U.S., 10 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4720512	A	19880119	US 86-843323	19860324
	US 4786556	A	19881122	US 87-77468	19870724
PRAI	US 86-843323		19860324		

AB Plastic articles are prepd. which have enhanced antithrombogenic activity due to the presence of **hydrophobic** materials attached to amine compds. bonded on the surface of the plastic which repel bonded antithrombogenic agents outwardly from the plastic surface, making them more readily available to the blood for subsequent thrombus inhibition. The amine-rich surface is plasma-treated with a gaseous material in an ionization chamber whereby **hydrophobic** groups generated from the gaseous material are introduced to give a **hydrophobic** amine-rich surface. Trimethylolpropane (44.73 g) and 337.59 g Terathane 650 (low-mol.-wt. polyether-polyol) (1 equiv each) were mixed at 45.degree., 524.00 g (4 equiv) hydrogenated diphenylmethane diisocyanate and 14 g (0.015%) dibutyltin dilaurate were added and after 5 min of mixing, the reactants were transferred to a 90.degree. oven for 60 min to give a prepolymer. This prepolymer (15 g) was added to 30 g toluene to make a 33% wt./wt. soln. This prepolymer soln. was added dropwise (2 h) to a sep. diamine soln. contg. 4.1 g 1,6-hexanediamine, 20 g iso-PrOH and 10 g toluene and stirred an addnl. 2 h to give an amine-rich polyurethane-urea (APU). This was dissolved in MeOH to a 20% wt./wt. soln. for deposition on the polymeric support structure. Aldehyde-activated heparin for bonding to the amine compd. was prepd. by the periodate oxidn. of heparin. Polyurethane tubing was coated with the APU soln. and dried in a N atm. at ambient temp. for 60 min. The coated tubing was then treated with hexafluoropropylene plasma (0.3 torr and 50 W) for 15 min. Samples were then treated with 2% aq. aldehyde-activated heparin (pH 6.6, 10N NaOH) and 0.025 g Na cyanoborohydride at 50.degree. for 2 h, washed with 3M saline for 1 h, and treated for a 2nd 2 h period at the same conditions to give a material that had 87.8 .mu.g heparin bonded (radiolabel assays) per cm2 of surface area compared with 143.4 .mu.g/cm2 for control samples which were identically treated except without plasma treatment. After a dynamic leach study in 3M saline for 24 h, 79.4 .mu.g heparin/cm2 remained on the plasma-treated sample compared with 103.7 .mu.g/cm2 for the control demonstrating the permanency of the **covalently** bonded heparin.

The increased antithrombogenicity of a plasma-treated sample was demonstrated in an in vivo study by inserting it in 1 external jugular vein of a same animal and measuring platelet adhesion (platelet uptake slope) and thrombus wt. which were 0.0188 and 4.53 mg, resp., for the plasma-treated sample compared with 0.0413 and 14.13 mg, resp., for the control sample; the lower slope and lower thrombus wt. indicated increased antithrombogenic activity.

IT **9005-49-6D**, Heparin, reaction products with **hydrophobic** amine-rich polymeric substrate
RL: BIOL (Biological study)
(as antithrombogenic material)

L101 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1988:156424 HCAPLUS
DN 108:156424
TI **Covalent** immobilization of chitosan derivatives onto polymeric film surfaces with the use of a photosensitive hetero-bifunctional crosslinking reagent
AU Aiba, Seiichi; Minoura, Norihiko; Taguchi, Kazuhiro; Fujiwara, Yukihiko
CS Funct. Polym. Div., Ind. Prod. Res. Inst., Yatabe, 305, Japan
SO Biomaterials (1987), 8(6), 481-8
CODEN: BIMADU; ISSN: 0142-9612
DT Journal
LA English
AB Partially N-acetylated chitosan was **covalently** immobilized onto polymeric film surfaces using the photosensitive heterobifunctional crosslinking reagent, Me 4-azidobenzoimidate, which was previously attached to the chitosan by the reaction between an imidoester group of the reagent and a free amino group of the chitosan. The grafting was accomplished by irradiating with UV light, the modified chitosan being coated on the film surfaces to photolyze arylazide groups, thus crosslinking the chitosan and the underlying substrate polymer together. For UV absorption and IR spectroscopy, the irradn. time of 3 min was sufficient for the photolysis of the azide group. The thickness of the immobilized chitosan layer was estd. to be of the order of 30-150 nm using attenuated total reflectance Fourier transform IR spectroscopy (ATR-FTIR). The chitosan mols. immobilized on the surfaces could be chem. modified by several reagents and also treated with a heparin soln. to form a polyelectrolyte complex on the surface. The ionically bound heparin was partially released into a phosphate buffer soln.

IT **9005-49-6DP**, Heparin, reaction products with chitosan derivs. bound on polymer surfaces **24937-78-8DP**, Ethylene vinyl acetate copolymer, reaction products with crosslinked chitosan
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and properties of)

L101 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1986:10617 HCAPLUS
DN 104:10617
TI Liposomes containing pharmaceuticals
IN Honda, Haruo; Maruyama, Tetsupei; Saito, Noriko
PA Terumo Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI JP 60155109 A2 19850815 JP 84-9910 19840123
JP 63054684 B4 19881028
AB Liposome-contg. drugs are prepd. for stabilization and **sustained release** of drugs. The liposome membranes are made of lipids and C10-20 fatty acids. Thus, lecithin 32, cholesterol [**57-88-5**] 15.4, and oleic acid [112-80-1] 5.0 mg were dissolved in 3 mL CHCl3, mixed with 3 mL iso-Pr ether and 1 mL H2O contg. 10,000 units urokinase [9039-53-6], treated with ultrasound 5 min at 4.degree., and dried by a rotary evaporator at 40.degree. to give a gel. The gel was mixed with 5 mL saline, and the solvent removed. The suspension was centrifuged at 100,000 .times. g for 30 min. The sediment was washed with saline to give urokinase-contg. liposomes.
IT **544-63-8**, biological studies
RL: BIOL (Biological study)
(liposomes contg. cholesterol and, for drug formulation)
IT **57-88-5**, biological studies
RL: BIOL (Biological study)
(liposomes contg. fatty acids and, for drug formulation)
IT **9005-49-6**, biological studies
RL: BIOL (Biological study)
(liposomes contg., for pharmaceuticals)

L101 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1985:100827 HCAPLUS
DN 102:100827
TI Liposome formulations containing pharmaceuticals
PA Terumo Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59222410	A2	19841214	JP 83-95674	19830601

AB **Sustained-release**, stable pharmaceuticals consist of liposomes contg. drugs. The liposomes are made of lecithins or natural phospholipids contg. sterols such as cholesterol [**57-88-5**]. Thus, phospholipids, cholesterol, and dicetyl phosphate [2197-63-9] (7:7:1 mol ratio) were mixed and dissolved in CHCl3, and the soln. was dried in a rotating flask to form a film on the wall of the flask. The film was dissolved in a CHCl3-iso-Pr ether (1:1) mixt., mixed with drugs, treated with ultrasonic waves, and dried in a rotary evaporator to obtain liposomes.
IT **57-88-5**, biological studies
RL: BIOL (Biological study)
(liposomes contg. phospholipids and, for **sustained-release** pharmaceuticals)
IT **9005-49-6**, biological studies
RL: BIOL (Biological study)
(**sustained-release** pharmaceuticals contg. liposomes and)

L101 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1982:461071 HCAPLUS
DN 97:61071
TI Nonthrombogenic material comprising substrate which has been reacted with heparin
IN Joh, Yasushi

PA Nippon Zeon Co., Ltd. , Japan
SO U.S., 10 pp. Division of U.S. Ser. No. 60,054.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4329383	A	19820511	US 80-170656	19800721
	US 4415490	A	19831115	US 79-60054	19790724
PRAI	US 79-60054		19790724		

AB Nonthrombogenic materials for blood contacting medical devices such as extracorporeal systems are prepd. by **covalently** linking heparin with base aldehyde group-contg. polymers through only 1 acetal or hemiacetal bond at each bonding site. Polymers from aldehyde group-contg. monomers or natural polymers with glucose units, treated with HIO4 which converts them to aldehyde group-contg. polymers are used. Examples included cuprophane and cellophane films, or starch treated with HIO4 and then heparin. Other polymers such as vinyl acetate-ethylene copolymer or allylidene diacetate-vinyl acetate copolymer were hydrolyzed and the former treated with Na heparin-NaIO4 and the latter with heparin. Coagulation times with fresh human blood were much greater for the heparinized polymers compared to nonheparinized ones or glass plate control.
IT **9005-49-6DP**, reaction products with formaldehyde-group-contg. polymer **24937-78-8DP**, hydrolyzed, metaperiodate oxidized, reaction products with heparin
RL: PREP (Preparation)
(prepn. of, as antithrombogenic material)

=> d his l106-

(FILE 'REGISTRY' ENTERED AT 12:24:33 ON 06 JUL 1999)

FILE 'HCAPLUS' ENTERED AT 12:25:22 ON 06 JUL 1999
E HYDROPHOB/CW
L106 5713 S E4-E6
L107 78 S L106 AND L51
L108 4 S L107 AND L60
L109 3 S L108 NOT L8,L101
L110 1 S L107 AND (BILE OR STEROL OR ALKANOIC)
L111 0 S L110 NOT L8
L112 13 S L107 AND 63/SC
L113 11 S L112 NOT L8,L109,L101
L114 15 S L109,L110,L113

=> d bib abs hitrn tot

L114 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1998:765663 HCAPLUS
DN 130:114999
TI Preparation of slightly hydrophobic **heparin** derivatives which can be used for solvent casting in polymeric formulation
AU Lee, Yong-Kyu; Moon, Hyun Tae; Byun, Youngro
CS Department of Materials Science and Engineering, Kwangju Institute of Science and Technology, Kwangju, 506-712, S. Korea
SO Thromb. Res. (1998), 92(4), 149-156

CODEN: THBRAA; ISSN: 0049-3848
PB Elsevier Science Inc.
DT Journal
LA English
AB **Heparin** is clin. administered mainly by i.v. injection because of its highly hydrophilic property. A slightly hydrophobic **heparin** deriv. which can be dissolved in org. solvent can be widely used in polymeric devices for clin. applications. In this study, hydrophobic **heparin** derivs. were prepd. by coupling **heparin** with deoxycholic acid, cholesterol, lauric acid, and palmitic acid, resp. The hydrophobicity of these **heparin** derivs. depended on the feed mole ratio of **heparin** to hydrophobic agents, and they showed good soly. in the co-solvent of acetone and water, as well as in water alone. Also, these **heparin** derivs. showed high anticoagulant activity. This approach for prepg. hydrophobic **heparin** is expected to advance the drug delivery system by further extending the applications of **heparin** to medical devices such as cardiopulmonary bypass circuits, heart lung oxygenators, and kidney dialyzers.

L114 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1998:708924 HCAPLUS
DN 129:335768
TI Controlled release formulations using intelligent polymers
IN Odidi, Isa; Odidi, Amina
PA Can.
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9847491	A2	19981029	WO 98-CA274	19980403
	WO 9847491	A3	19990121		
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2216215	AA	19981005	CA 97-2216215	19971117
	AU 9868170	A1	19981113	AU 98-68170	19980403
PRAI	US 97-36551		19970421		
	WO 98-CA274		19980403		

AB An extended release dosage compn. of pharmaceutically active substances that have a water contact angle (.theta.) such that cos .theta. is between +0.9848 and -0.9848 presented as a matrix tablet contg. the said pharmaceutically active substances, with/without suitable pharmaceutical excipients in intimate mixt. with two groups of intelligent polymers having opposing wettability characteristics, one demonstrating a stronger tendency towards hydrophobicity and the other a stronger tendency towards hydrophilicity, the polymer combination being between the ratios of 1:50 and 50:1 amts. effective to control the release of said pharmaceutically active substances in a math. predictable manner, wherein the polymer demonstrating a stronger tendency towards hydrophobicity is not less than 5 % wt/wt and preferably between 5-70 % wt/wt of the final formulation

compn. The intelligent polymers being Et **cellulose** (EC) as a more strongly hydrophobic and hydroxyethyl **cellulose** (HEC) and/or hydroxypropyl Me **cellulose** (HPMC) as more strongly hydrophilic (the ratio of HEC to HPMC being between 1:100 and 100:1). The matrix tablet is optionally coated with an enteric coat, 0-5 % - 15 % wt/wt to prevent the initial burst effect seen in such systems and to impart gastrointestinal tract (GIT) "stealth" characteristics esp. in the presence of food. A compn. was prepd. contg. HPMC 20, glipizide 1.83, Et **cellulose** 16.17, hydroxyethyl **cellulose** 4, lactose 30, microcryst. **cellulose** 23, SiO2 0.6, Na lauryl sulfate 4, and Mg stearate 0.4%.

L114 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1998:190439 HCAPLUS
DN 128:221553
TI The use of bead **celluloses** as carrier for controlled delivery of drugs. Part 10. Lipophilic coprecipitates of bead **cellulose** and fatty oils
AU Wolf, Bertram
CS Dep. Pharmaceutical Technol., Inst. Pharmacy, Fac. Biological Sciences, Pharmacy, Psychology, Univ. Leipzig, Leipzig, D-04207, Germany
SO Pharmazie (1998), 53(3), 177-180
CODEN: PHARAT; ISSN: 0031-7144
PB Govi-Verlag Pharmazeutischer Verlag
DT Journal
LA English
AB Coppts. of bead **cellulose** (BC) and strong lipophilic liqs. (white mineral oil (WMO), oenotheric oil, olive oil, juniper berry oil and peanut oil) were prepd. with different wt. ratio. BC was able to take up an WMO amt. of max. 25% of **cellulose** dry wt. The product was flowable and consisted of spherical and not cohesive particles, higher WMO content yielded agglomerated products. WMO was incorporated into the pores of BC and also pptd. on the surface of the beads. The uptake of water by the product was low due to predominant hydrophobic properties. BC/ oil coppts. represent a suitable lipophilic drug carrier system.

L114 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1998:135049 HCAPLUS
DN 128:196638
TI Characteristics of hydrophobic-hydrophilic multiblock copolymers
AU Kim, Yong Joo; Sung, Yong Kiel; Piao, Ai Zhi; Kim, Sung Wan
CS Reliability Technology Division, NITQ, Kyunggido, 427-010, S. Korea
SO Korea Polym. J. (1997), 5(4), 214-220
CODEN: KPJOE2; ISSN: 1225-5947
PB Polymer Society of Korea
DT Journal
LA English
AB ABCBA type amphiphilic block copolymers comprising poly(di-Me siloxane), poly(ethylene oxide), and **heparin** segments were synthesized by coupling reactions between intermediate and end-functionalized oligomers. These multiblock copolymers were identified using 1H-NMR and FT-IR. The compns. of synthesized block copolymers were detd. by end group anal., sulfur elemental anal., and integration of NMR signals. The degrees of swelling of the multiblock copolymers increased by increasing the mol. wt. of PEO in water. By utilizing Wilhelmy plate contact angle measurement and electron microscopy, the surfaces of the block copolymers were characterized. Contact angle measurements demonstrated the hydrophilic effect of PEO and **heparin** on the hysteresis of the block copolymers and the heparinized block copolymers.

L114 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1997:592685 HCAPLUS
DN 127:267968
TI Evaluation of biological responses to polymeric biomaterials by RT-PCR analysis II: study of HSP 70 mRNA expression
AU Kato, Shinya; Akagi, Takami; Kishida, Akio; Sugimura, Kazuhisa; Akashi, Mitsuru
CS Dep. Applied Chemistry Chemical Engineering, Faculty Engineering, Kagoshima Univ., Kagoshima, 890, Japan
SO J. Biomater. Sci., Polym. Ed. (1997), 8(10), 809-814
CODEN: JBSEEA; ISSN: 0920-5063
PB VSP
DT Journal
LA English
AB In order to investigate how cells recognize biomaterials, mRNA that was expressed in attached HeLa S3 cells on various substrates was evaluated. As culture substrates, **cellulose**, ethylene-vinyl alc. copolymer (EVAL), nylon, tissue culture polystyrene (TCPS), high-d. polyethylene (PE), silicone rubber, and tetrafluoroethylene-hexafluoropropylene copolymer (yF) were used. HeLa S3 cells were cultured on these substrates for 24 h. The expressed HSP 70s mRNA was then isolated and detected using the RT-PCR method. As a result, the expression of HSP 70B mRNA was largely induced in cells that adhered to hydrophilic surfaces. On the other hand, on hydrophobic surfaces, the HSP 70B mRNA expression was low. It is concluded that HSP 70B mRNA expression is sensitive to differences in the hydrophilicity-hydrophobicity of the substrates.

L114 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1996:750669 HCAPLUS
DN 126:135519
TI Delivery of antitumor compounds to the rat colon: in vitro and in vivo evaluation
AU Ciftci, Kadriye; Groves, Michael J.
CS Institute for Tuberculosis Research, College of Pharmacy, University of Illinois at Chicago (M/C 964), 950 South Halsted Street, Room 2014 SEL, Chicago, IL, 60607-7019, USA
SO Int. J. Pharm. (1996), 145(1,2), 157-164
CODEN: IJPHDE; ISSN: 0378-5173
PB Elsevier
DT Journal
LA English
AB Using a rat model, the authors demonstrated that an enteric-coated hydroxypropyl Me **cellulose** (HPMC) granular formulation was capable of targeting or persisting in the colonic region. 55The formulation was optimized by measuring the in vitro release of 5-fluorouracil (5-FU) of granules prepd. with different mol. wts. of HPMC ('Methocel') coated with different hydrophobicities of acrylic acid copolymers ('Eudragit'), a 'Methocel' K100M granule coated with 'Eudragit'-S being selected. X-ray examn. of lightly anesthetized rats demonstrated that orally administered enteric-coated granules contg. 50% wt./wt. barium sulfate persisted in the colon for longer than similar barium sulfate suspensions. Granules of HPMC, coated and uncoated, contg. 5-FU were administered by oral gavage and the tissue levels of drug were detd. by high performance liq. chromatog. At 6 h, drug from the uncoated formulation could be found in all tissues examd. On the other hand, at 8 h, drug from the coated granules could only be found in significant quantities in colon contents and colon tissue homogenates with increasing amts. being measured at 12 and 24 h.These data suggest that, at least in

the rat model, formulations can be designed that would persist in the colon and rectal regions, releasing drug to and not through the tissues. This concept might be valuable in the post-surgical treatment of colonic cancer, reducing the required dose of drug and therefore side effects. This should improve patient compliance and thus, the treatment outcome.

L114 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1996:604906 HCAPLUS
DN 125:283803
TI Inhibitory effects of **palmitic acid** on anaerobic bacteria
AU Chu, Chun Feng; Miyahara, Takashi; Noike, Tatsuya
CS Tohoku Univ., Sendai, 980-77, Japan
SO Kogyo Yosui (1996), 455, 16-21
CODEN: KOYOAW; ISSN: 0454-1545
DT Journal
LA Japanese
AB Anaerobic decompn. of **cellulose**, glucose, gelatin, acetate, and propionate by inoculated wastewater was inhibited by the addn. of palmitate to the wastewater. Bacteria acclimatization was carried out for 3 mo to 2 yr according to the substrate property. Hydrophobicity of acclimatized sludge was measured by modified Matsumoto's method. **Cellulose** decompn. was strongly inhibited by palmitate, and inhibition decreased by the following order: glucose > acetate > propionate > gelatin. Sludge having weaker hydrophobicity was inhibited stronger by palmitate than the one having stronger hydrophobicity.
IT **57-10-3**, **Palmitic acid**, processes
RL: ADV (Adverse effect, including toxicity); BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); BIOL (Biological study); PROC (Process); USES (Uses)
(inhibitory effects of **palmitic acid** on org. substrate biodegrdn. in anaerobic wastewater treatment)

L114 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1996:576363 HCAPLUS
DN 125:256905
TI Chemical modifications of **heparin**. II. Hydrophobization of partially N-desulfated **heparin**
AU Diancourt, Francis; Braud, Christian; Vert, Michel
CS C.R.B.A., Faculte de Pharmacie, Montpellier, 34060, Fr.
SO J. Bioact. Compat. Polym. (1996), 11(3), 203-218
CODEN: JBCPEV; ISSN: 0883-9115
DT Journal
LA English
AB In order to hydrophobize **heparin**, dodecanal, **cholic acid** and **stearic acid** were conjugated, resp., to partially N-desulfated **heparin** with the formation of imine bonds in the case of dodecanal and amide bonds in the case of the two latter compds. It was found that the three conjugates were aggregated in aq. soln. with the formation of .apprx.300 nm aggregates. The conjugates retained the anticoagulant activity of the parent **heparin** according to in vitro tests. In vivo, slightly prolonged activity was obsd. after s.c. injection. The activity lasted for at least 2 h after i.v. injection suggesting that aggregates of hydrophobized **heparin** were not captured by the reticuloendothelial system. These new water dispersed aggregates are of potential interest for the transport and slow release of hydrophobic drugs in blood either as macromol. prodrugs or after mol. microencapsulation, and for oral administration.
IT **57-11-4DP**, **Stearic acid**, conjugates with

desulfated **heparin 81-25-4DP, Cholic acid**, conjugates with desulfated **heparin**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(hydrophobization of partially desulfated **heparin** in relation to anticoagulant activity)

IT **57-11-4, Stearic acid**, reactions
81-25-4, Cholic acid
RL: RCT (Reactant)
(hydrophobization of partially desulfated **heparin** in relation to anticoagulant activity)

L114 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1996:113950 HCAPLUS
DN 124:211942
TI Blood compatible biomaterials: hydrophilicity vs. hydrophobicity
AU Sevastianov, Viktor I.; Drushlyak, Irina V.; Eberhart, Robert C.; Kim, Sung Wan
CS Institute Transplantology Artificial Organs, Moscow, Russia
SO Macromol. Symp. (1996), 103(Polymers and Medicine), 1-4
CODEN: MSYMEC; ISSN: 1022-1360
DT Journal
LA English
AB A tendency towards unification of adsorption properties of hemo compatible hydrophilic and hydrophobic surfaces within the first minutes of contact with protein was demonstrated. Nevertheless, the change of adsorption properties of blood compatible hydrophilic surfaces after passivation with proteins is much less in comparison with the one for blood compatible hydrophobic surface.

L114 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1995:731156 HCAPLUS
DN 123:122944
TI Applications of hydrophobically-modified hydroxypropyl methyl **cellulose** to topical preparations, IV. Influence of indomethacin and isopropanol on hydrophobic interaction through long-chain alkyl groups of hydrophobically-modified hydroxypropyl methyl **cellulose**
AU Ikeda, Kaori; Saitoh, Izumi; Oguma, Takayoshi; Takagishi, Yasushi
CS Developmental Res. Labs., Shionogi and Co., Ltd., Hyogo, 660, Japan
SO Chem. Pharm. Bull. (1995), 43(6), 1012-16
CODEN: CPBTAL; ISSN: 0009-2363
DT Journal
LA English
AB The hydrophobic interaction between long-chain alkyl groups of hydrophobically-modified hydroxypropyl Me **cellulose** (HM-HPMC) and indomethacin (IM) was studied using a fluorescence probe method in which pyrene mols. are allowed to assoc. with long-chain alkyl groups. In an HM-HPMC soln., the hydrophobicity of the pyrene environment markedly increased as the concn. of HM-HPMC was increased, indicating an increase of hydrophobic interaction between the long-chain alkyl groups. When IM was added to this soln., the hydrophobicity of the pyrene environment decreased as the IM concn. increased. Thus, it was suggested that the hydrophobic interaction between long-chain alkyl groups and IM caused a weakening of the hydrophobic interaction between HM-HPMC mols. themselves. When isopropanol (IPA) was added to an HM-HPMC soln., IPA weakened the hydrophobic interaction through long-chain alkyl groups. Thus, IPA caused an expansion of the intermol. hydrophobic regions. For this reason, the amt. of IM entrapped in these regions increased when the IPA concn. as

increased. However, when the IPA concn. was further increased, the hydrophobic interaction finally disappeared. Thus, an IM mols. could no longer be trapped in the hydrophobic regions, the activity of HM-HPMC suppressing the growth of IM crystals disappeared.

L114 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1994:426516 HCAPLUS
DN 121:26516
TI New Approaches for the Preparation of Hydrophobic **Heparin** Derivatives
AU Liu, Jian; Pervin, Azra; Gallo, Cindy M.; Desai, Umesh R.; Van Gorp, Cornelius L.; Linhardt, Robert J.
CS College of Pharmacy, University of Iowa, Iowa City, IA, 52242, USA
SO J. Pharm. Sci. (1994), 83(7), 1034-9
CODEN: JPMSAE; ISSN: 0022-3549
DT Journal
LA English
AB A **heparin** deriv. sufficiently lipophilic to be bound to plastics, forming blood-compatible supports, or to be used as an anticoagulant by transdermal or oral routes would be of great pharmaceutical interest. For such applications, the functional groups within **heparin**'s antithrombin III binding site, responsible for its anticoagulant activity, cannot be modified. Chem. is described in which lipophilic substituents were attached to the reducing termini of **heparin** chains. Substituents introduced at this position had a minimal effect on the antithrombin III binding sites found in **heparin**'s interior. These derivs., with enhanced hydrophobicities, were prepd. using two distinctly different approaches. First, octyl isocyanate and octadecyl isocyanate were coupled to the core peptide of peptidoglycan **heparin** to form octyl- and octadecyl-peptidoglycan **heparin**. These octyl- and octadecyl-peptidoglycan **heparins** were then purified by hydrophobic interaction chromatog. on phenyl-Sepharose CL-4B, demonstrating their enhanced hydrophobicities. Second, the lipophilic acyl hydrazides of various long chain fatty acids were coupled to **heparin**'s reducing end. Caprylic (C8), capric (C10), lauric (C12), and stearic(C18) hydrazide derivs. of **heparin** were prepd. using this approach. Only the stearyl hydrazide deriv. of **heparin** showed a measurable increase in lipophilicity. This result demonstrated that a single small linear C8, C10, or C12 aliph. chain was ineffective in enhancing the hydrophobicity of the highly neg., polyanionic **heparin** mol. Two lipophilic chains, lauryl (C12) and stearyl (C18), were then coupled to a single **heparin** chain, resulting in a **heparin** deriv. having enhanced hydrophobicity. All the **heparin** derivs. prepd. in this study maintained some of their anticoagulant activity.

L114 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1993:415249 HCAPLUS
DN 119:15249
TI In vitro passive and iontophoretically assisted transport of salbutamol sulfate across synthetic membranes
AU Rodriguez Bayon, A. M.; Corish, J.; Corrigan, O. I.
CS Fac. Farm., Univ. Complutense Madrid, Madrid, 28040, Spain
SO Drug Dev. Ind. Pharm. (1993), 19(10), 1169-81
CODEN: DDIPD8; ISSN: 0363-9045
DT Journal
LA English
AB The passive and elec. assisted transport of salbutamol sulfate through

four synthetic membranes was investigated. Two of these were hydrophilic (Visking 18/32 and Celgard-3401) and two hydrophobic (Celgard-2400 and Celgard-4500). Significant differences in passive membrane transport were obsd. The hydrophilic Celgard membrane gave similar passive transport rates to Visking 18/32. However, slower rates were obsd. with the hydrophobic membranes, the rate for Celgard-4500 being 4-5 fold smaller than Visking 18/32 and that for Celgard-2400 being negligible over a period of 6 h. The passive release of salbutamol sulfate from the hydrogel across the hydrophilic membranes was matrix-controlled, whereas the membrane was the rate-limiting element for passive release through the hydrophobic membranes. Application of an elec. potential giving rise to iontophoretic currents in the range 0.100 to 0.500 mA led to an increase in drug transport rate and this effect became larger as the current was increased. The quantity of drug transported in a given time period increased linearly with time for both kind of membranes. However, the relative increase in transport induced by current was greatest with the hydrophobic membrane.

L114 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1991:12177 HCAPLUS
DN 114:12177
TI Protein adsorption from semi-permeable membranes during biologic solution concentration through effective dialysis
AU Godgevirgova, Ts.; Dimov, A.; Petrov, S.
CS Dep. Gen. Chem. Technol., Higher Chem. Tech. Inst., Burgas, 8010, Bulg.
SO Dokl. Bolg. Akad. Nauk (1990), 43(8), 149-52
CODEN: DBANAD; ISSN: 0366-8681
DT Journal
LA English
AB Adsorption isotherms of membranes against human albumin having concns. 0-12 g/L during 12 h adsorption under static dialysis conditions without using **cellulose** filters showed that the highest amt. of proteins were adsorbed by polysulfone membranes which had the highest hydrophobicity while the lowest amt. of proteins were adsorbed by regenerated **cellulose** and partially hydrolyzed polyacrylonitrile membranes.

L114 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1990:558657 HCAPLUS
DN 113:158657
TI Examination of the permeability of microfiltration membranes
AU Moiseenko, L. A.
CS VNII Antibiot, Moscow, USSR
SO Khim.-Farm. Zh. (1990), 24(6), 64-7
CODEN: KHFZAN; ISSN: 0023-1134
DT Journal
LA Russian
AB The permeability of microfiltration membranes depended on the nature of a polymer method of producing a porous film, and hydrophobicity. Wettability affected the diffusion of liqs. through the hydrophobic membranes. An equation for calcg. the membrane permeability is given.

L114 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 1999 ACS
AN 1989:601474 HCAPLUS
DN 111:201474
TI Effects of the hydrophobicity of glass beads surface and moisture content of binder on the hardness of tablets
AU Wada, Yasutaka; Mizuta, Taiiti; Sakamoto, Teruo
CS Res. Lab., Shionogi Co., and Ltd., Ohsaka, 553, Japan

SO Yakugaku Zasshi (1989), 109(7), 480-6
CODEN: YKKZAJ; ISSN: 0031-6903
DT Journal
LA Japanese
AB Tablet hardness was measured for direct compressed tablets contg. various glass beads and binders. Intact, trimethylsilylated and chloromethyldimethylsilylated glass beads were used to investigate the effects of surface property on the tablet hardness. The tablet hardness was decreased by the hydrophobic modification of glass beads surface. The increase of moisture contents of binder accelerated the decrease of tablet hardness of trimethylsilylated glass beads tablets. From SEM, it was concluded that the decrease of tablet hardness obsd. for the hydrophobic glass beads could be explained in terms of the variation of the adhesive ability of binder particles to glass beads.